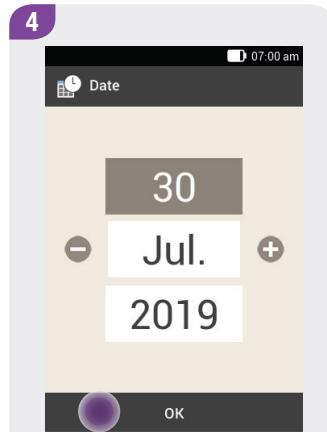


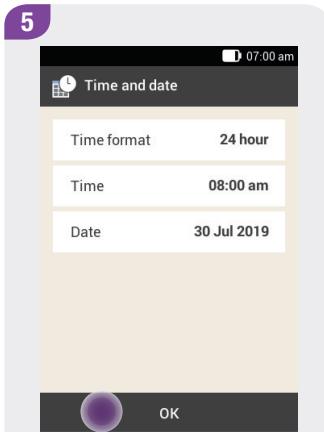
Use and to set the hours and minutes for the current time.

Tap **OK**.



Use and to set the day, month and year.

Tap **OK**.



Then tap **OK**.

11.3 Bolus Settings

Main menu > Settings > Bolus settings

This section provides information on the following settings:

- ▶ Quick bolus buttons
- ▶ Maximum quick bolus
- ▶ Quick bolus increment
- ▶ Maximum bolus amount
- ▶ Delivery lag time



WARNING

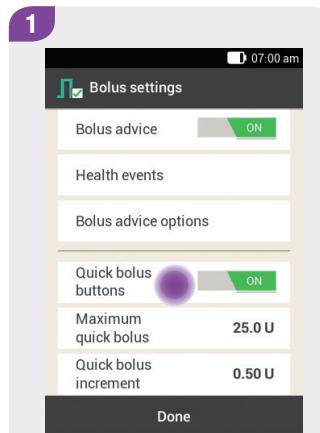
The therapy settings must be specified by your healthcare professional and you may only change them after prior consultation. Otherwise, there is a risk of experiencing hyperglycemia or hypoglycemia.

Quick bolus buttons

A quick bolus is a standard bolus that is programmed and delivered using the quick bolus buttons on the micropump.

The default setting for the quick bolus buttons is *on*.

For more information on the quick bolus, see chapter 6.5 *Quick Bolus*.



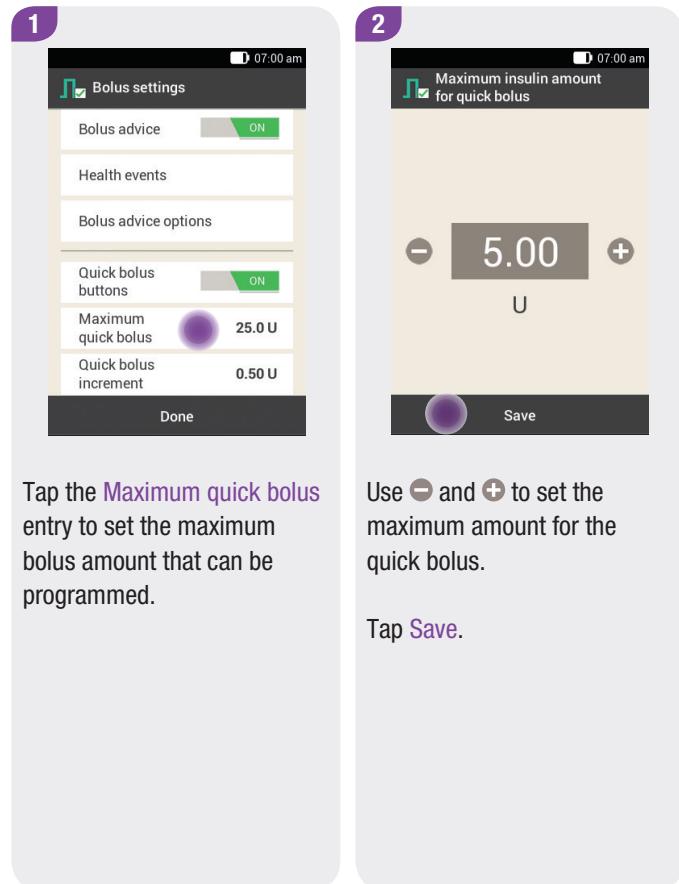
Tap **Quick bolus buttons** to activate or deactivate the quick bolus buttons of the micropump.

Maximum quick bolus

You use this setting to define the maximum insulin amount that may be delivered with a quick bolus.

Note

You cannot define a maximum quick bolus that is greater than the maximum bolus amount. For more information, see section *Maximum bolus amount*.



1

Bolus settings

Bolus advice ON

Health events

Bolus advice options

Quick bolus buttons ON

Maximum quick bolus 25.0 U

Quick bolus increment 0.50 U

Done

2

Maximum insulin amount for quick bolus

5.00 U

– +

Save

Tap the **Maximum quick bolus** entry to set the maximum bolus amount that can be programmed.

Use **–** and **+** to set the maximum amount for the quick bolus.

Tap **Save**.

Quick bolus increment

The quick bolus increment indicates the amount by which your insulin dose is increased with each press of the quick bolus buttons while programming a quick bolus.

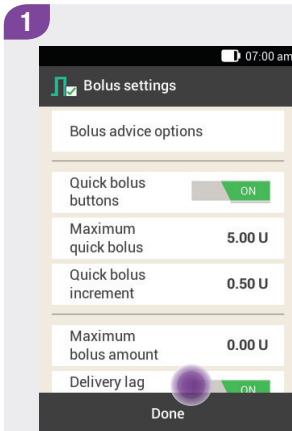
You can set the following quick bolus increments:

- ▶ 0.2 U
- ▶ 0.5 U
- ▶ 1.0 U
- ▶ 2.0 U

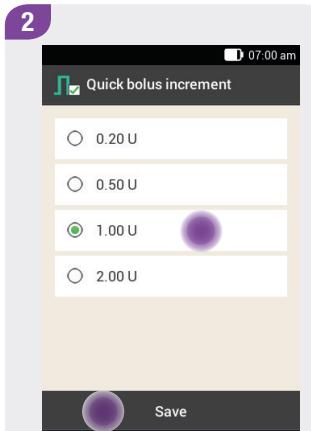
Write down the set quick bolus increment in the detachable quick reference instructions supplied in the cover of this User's Manual.

Example

With a quick bolus increment of 0.5 U, you have to press the quick bolus buttons 5 times to deliver an insulin amount of 2.5 U.



Tap **Quick bolus increment**.



Tap the desired quick bolus increment.

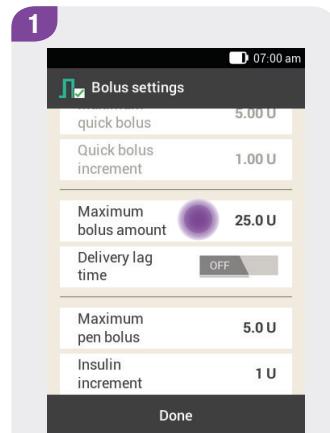
Tap **Save**.

Maximum bolus amount

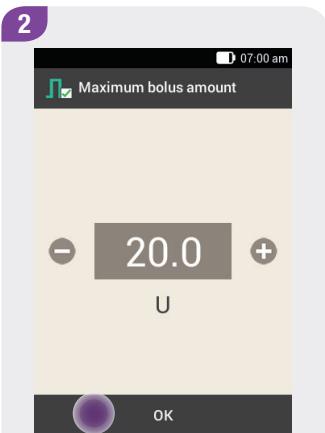
This setting specifies the maximum insulin amount that may be delivered in any bolus. Bolus advice that exceeds the maximum bolus amount requires additional confirmation or must be reduced. A manual bolus is upwardly limited by the maximum bolus amount selected.

Note

For the maximum bolus, you can set an amount between 1 U and 35 U.



Tap **Maximum bolus amount** to set the maximum insulin amount for a bolus.



Use **−** and **+** to set the maximum bolus amount.

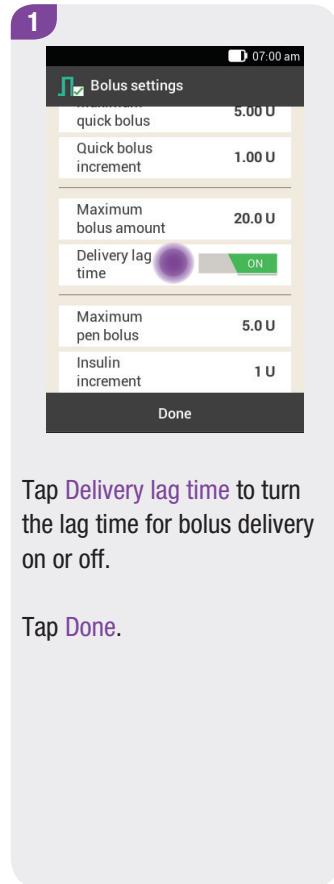
Tap **OK**.

Delivery lag time

In some situations (for example, if you have gastroparesis) it may be helpful to only start a bolus after you have started eating. You can use the delivery lag time setting to specify an interval between programming a bolus and the actual start of bolus delivery. For more information, see chapter 6.8 *Setting the Delivery Lag Time*.

Note

- ▶ While programming a bolus, you can set a delivery lag time of 0, 15, 30, 45 or 60 minutes.
- ▶ If a bolus contains correction insulin or if the blood glucose result is above the target range, it is not possible to enter a delivery lag time. Correction insulin must always be delivered immediately.



Tap **Delivery lag time** to turn the lag time for bolus delivery on or off.

Tap **Done**.

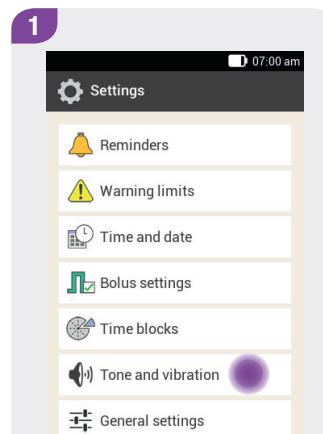
11.4 Tone and Vibration

Main menu > Settings > Tone and vibration

You can define how the diabetes manager should attract your attention in case of an event (for example, a warning). You can choose whether the diabetes manager issues an acoustic signal, vibrates or both. The settings you make are referred to as *signal mode* in the rest of this User's Manual. You can also suspend the signals for warnings for a specific period of time (for example, overnight).

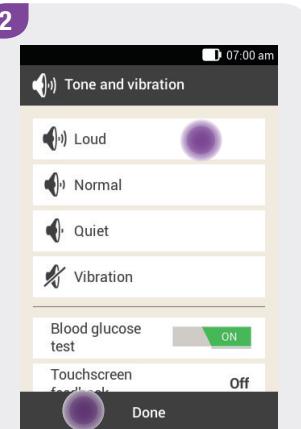
WARNING

If you ignore or do not notice the messages from the micropump system, there is a risk of hypoglycemia or hyperglycemia, which may culminate in ketoacidosis.



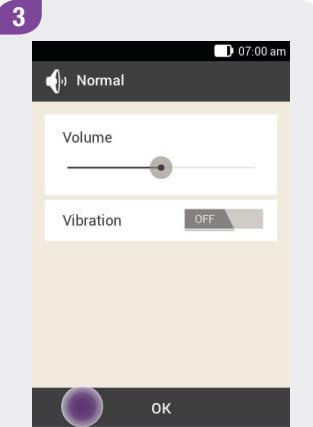
Tap **Tone and vibration**.

Signal modes



Tap **Loud**, **Normal**, **Quiet** or **Vibration** to set the desired signal mode.

Then tap **Done**.

Volume

Set the volume for the default setting by moving the slider.

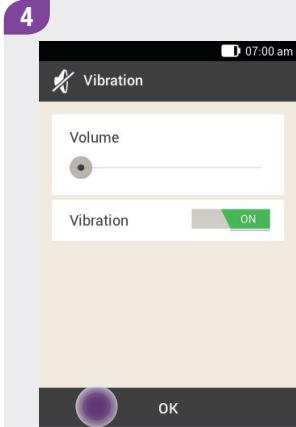
- ▶ Right: loud
- ▶ Middle: normal
- ▶ Left: quiet

Turn vibration on or off.

Tap **OK**.

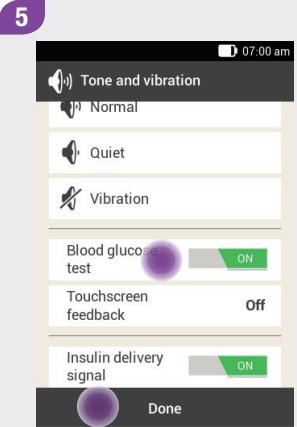
Note

When the volume slider is set to 0 percent in the far left position, vibration is automatically turned on.

Vibration

Tap **Vibration**.

Tap **OK**.

Blood glucose test

Tap **Blood glucose test** to turn the signals for a blood glucose test on or off.

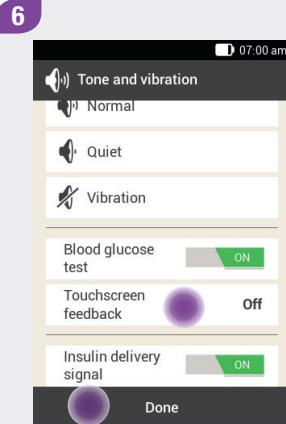
Once you have made the desired setting, tap **Done**.

Note

Signals during a blood glucose test:

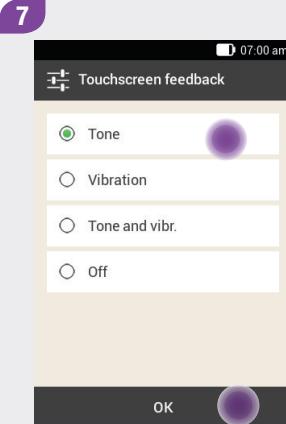
- ▶ Insert test strip
- ▶ Blood application detected
- ▶ Test completed

Touchscreen feedback



Tap **Touchscreen feedback** to set how the diabetes manager reacts when you make a selection using the touchscreen.

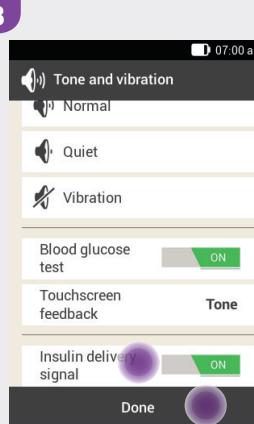
Once you have made the desired setting, tap **Done**.



Tap the desired touchscreen setting.

Tap **OK**.

Insulin delivery signal



Tap **Insulin delivery signal**.

If you turn on the signal, the diabetes manager issues a signal when you confirm delivery of a basal rate or bolus.

Tap **Done**.

11.5 Turning Off Signals Temporarily

Note

Signals for system messages:

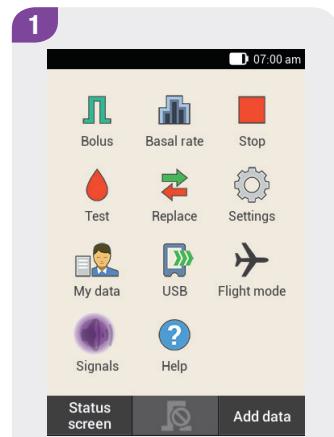
- ▶ USB plug connected to USB port
- ▶ USB plug removed from USB port
- ▶ Diabetes manager restart
- ▶ Communication via *Bluetooth* wireless technology completed

This function allows you to temporarily turn off the diabetes manager signals for reminders and warnings. You cannot, however, turn off maintenance and error messages because these events require your attention.

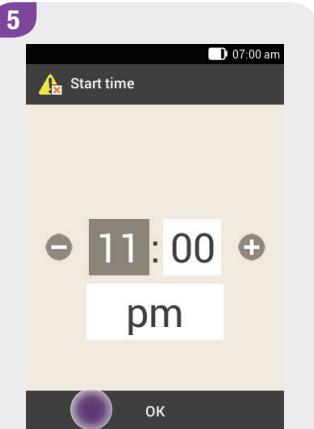
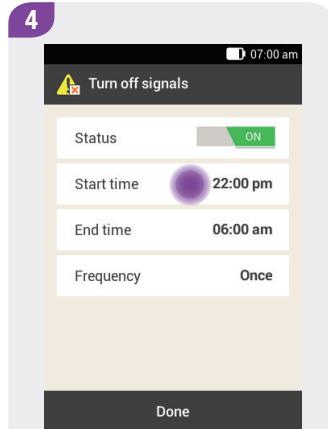
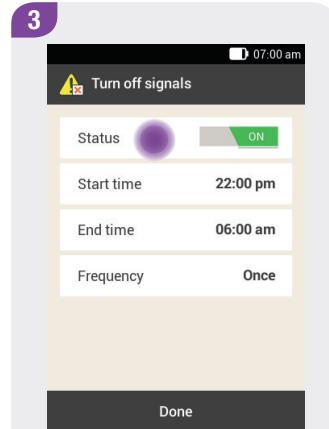
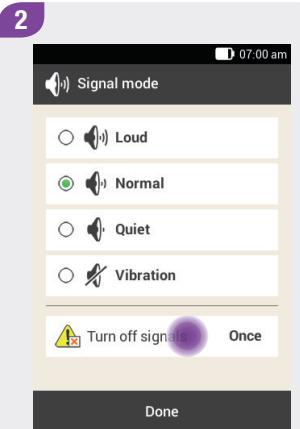
You can set up signal suspension as a one-time event or as an event that is repeated at the same time every day.

Note

- ▶ Signal suspension applies only for the diabetes manager and micropump warnings.
- ▶ Warnings that occur during signal suspension are displayed once the diabetes manager is turned on or signal suspension ends.



In the Main menu, tap **Signals**.



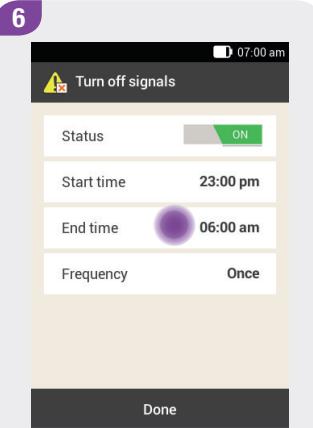
Tap **Turn off signals**.

Tap **Status** to turn on the **Turn off signals** feature.

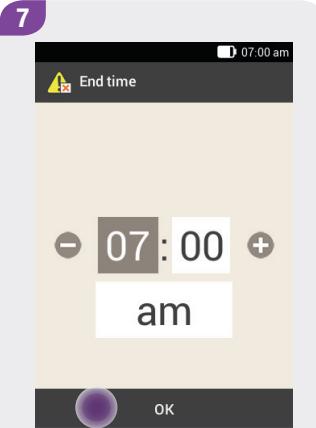
Tap **Start time** to set the start of signal suspension.

Use **-** and **+** to set the hours and minutes for the start time.

Tap **OK**.

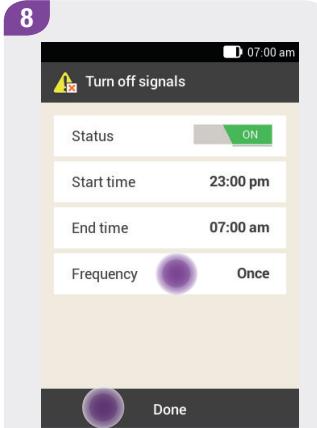


Tap **End time** to set the end of signal suspension.



Use **–** and **+** to set the hours and minutes for the end time.

Tap **OK**.



Tap **Frequency** to set the repetition interval for signal suspension.

Tap **Done**.

Note

If you use the **Once** setting, the signals for reminders and warnings are turned off only once for the time period you specified.

If you use the **Repeat** setting, the signals for reminders and warnings are turned off daily during the time period you specified.

Once the signal suspension time has expired, the signals for the reminders and warnings that occurred are issued again.

11.6 General Settings

Main menu > Settings > General settings

You can make the following settings in the general settings:

- ▶ **Language**

You can select the language for the texts displayed on the screen from a predefined list of languages.

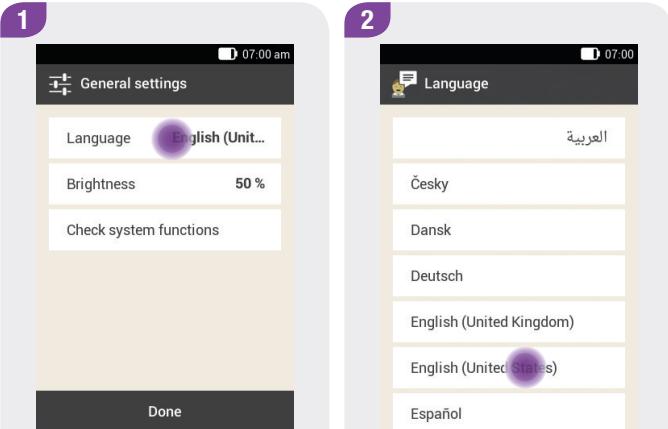
- ▶ **Brightness**

You can adjust the brightness of the diabetes manager screen for different lighting conditions.

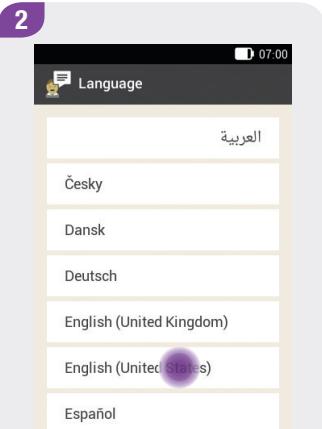
- ▶ **Check system functions**

For more information, see chapter 14 *Care and Maintenance*.

Language

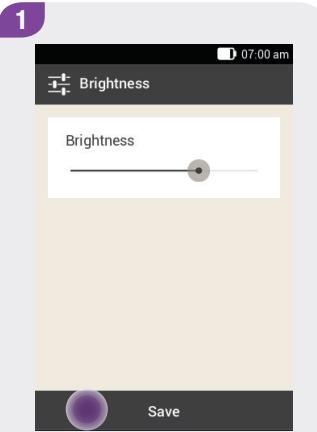


Tap **Language** or **Brightness** to make the desired settings.



Tap the entry for the language in which you want the menus and texts to appear on the screen.

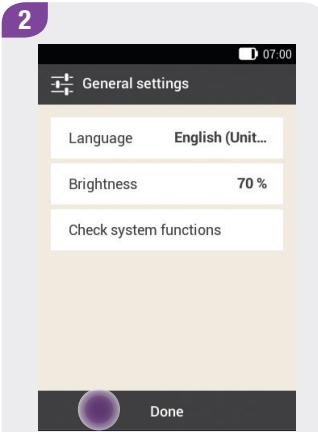
Brightness



Set the screen brightness by moving the slider.

- ▶ Right: bright
- ▶ Left: dark

Tap **Save**.



Tap **Done** to return to the list of settings.

11.7 Screen Lock

Main menu > Settings > Screen lock

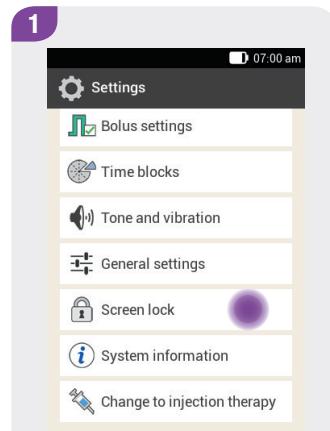
The diabetes manager is equipped with a screen lock, which can be used to protect the device against unauthorized access. You can define a personal identification number (PIN) to be used for access. The PIN is an identification code with four to eight digits that you enter and change in the **Screen lock** menu.

WARNING

To prevent unauthorized access, you should always leave the screen lock turned on; this way the therapy settings cannot be changed by third parties.

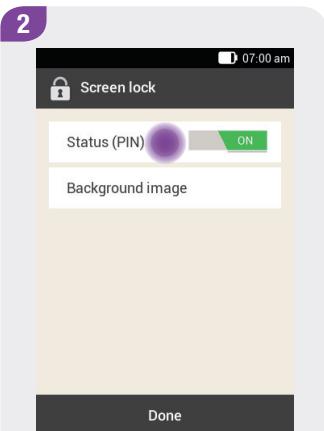
Note

- The screen lock is turned on by default.
- If you want to change the PIN, you have to turn the screen lock off and on again.
- Choose a PIN that you can easily memorize and enter.

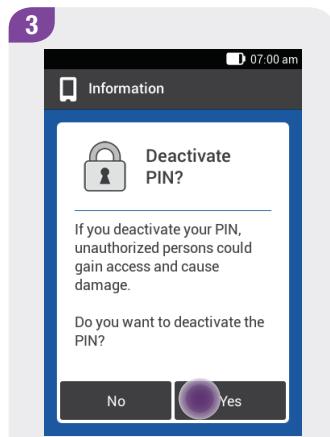


Tap **Screen lock**.

Turning off the screen lock

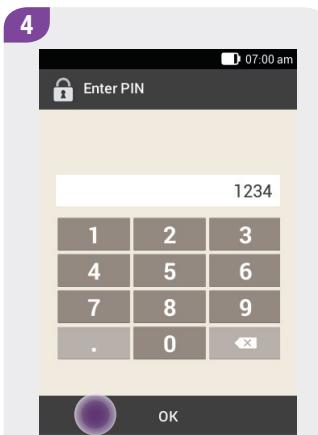


Tap **Status (PIN)** to turn off the screen lock.



When you turn off the screen lock, the above display appears for your information.

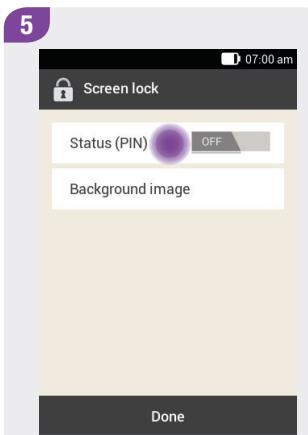
Tap **Yes** if you do **not** want to enter a PIN or if you want to **change the PIN**.



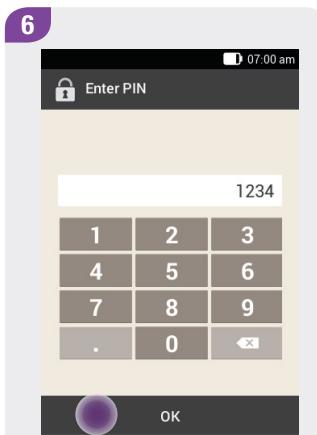
Enter the PIN to confirm it.

Tap **OK**.

Turning on the screen lock



Tap **Status (PIN)** to turn on the screen lock.



Enter a PIN with 4 to 8 digits.

Tap **OK**.

7



Enter the PIN again to confirm it.

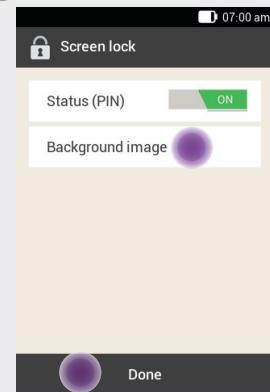
Tap **OK**.

Note

If you have forgotten the PIN you chose, you can unlock the diabetes manager with a PIN unlock code. You will find the label with the 8-digit PIN unlock code in the envelope in the bottom drawer of the micropump system packaging (system kit).

Changing the background image

1



Tap **Background image** to set the pattern for the background of the active screen lock.

Then tap **Done**.

2



Tap the tile with the desired background image.

Tap **None** if you do not want to have a background image.

Tap **Done**.

11.8 System Information

Main menu > Settings > System information

The system information provides various details on the micropump system:

- ▶ Micropump remaining running time
- ▶ Serial number of the diabetes manager
- ▶ Firmware of the diabetes manager
- ▶ Firmware of the blood glucose meter in the diabetes manager
- ▶ Radio frequency signal of the RFI firmware
- ▶ Selected language
- ▶ Status of rechargeable battery
- ▶ Date of manufacture
- ▶ Diabetes manager hardware update
- ▶ Number of resets/times switched on/off
- ▶ Number of blood glucose tests/control tests
- ▶ Serial number, micropump battery status, micropump firmware version

In addition, you can read legal information and the License Terms and Conditions.

Some of this information is primarily used by technical customer support and may be requested by the Accu-Chek Customer Care Service Center.

1

Settings

- Bolus settings
- Time blocks
- Tone and vibration
- General settings
- Screen lock
- System information**
- Change to injection therapy

2

System information

Micropump running time left (days)
21

Micropump battery status
Half full

Diabetes manager serial number
ML 12345678

Diabetes manager firmware version
04.85

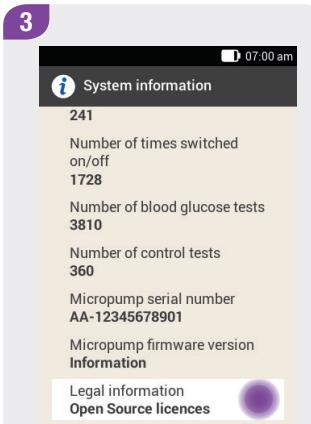
Blood glucose meter firmware version
3.01

RFI radio signal firmware

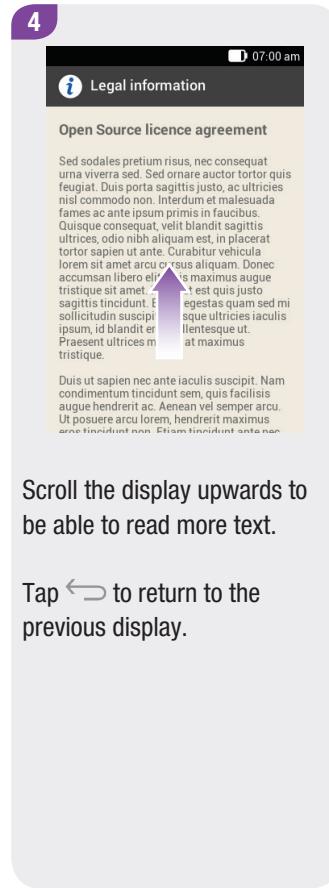
Tap **System information**.

The list of system information is displayed.

Scroll the display upwards to see additional system information.



Tap the **Legal information** entry to view the stored license agreements.



246

11.9 Traveling and Flight Mode

Time zone changes

Having the time and date set precisely is essential for your micropump system to function properly.



WARNING

Switching the system time to the respective time zone you are in may result in the basal rate and bolus advice to be inappropriate. When travelling across multiple time zones, discuss the adjustments necessary for basal rate and bolus advice with your healthcare professional in advance.

If you change the time of the micropump system, the basal rate will be delivered according to the time set. This also holds true for changing the clocks in summer and winter time.

Example

You change the time of the micropump system from 10:00 to 13:00. After the change, the micropump delivers the basal rate for that time at 13:00.

For information on how to change the date and time settings of

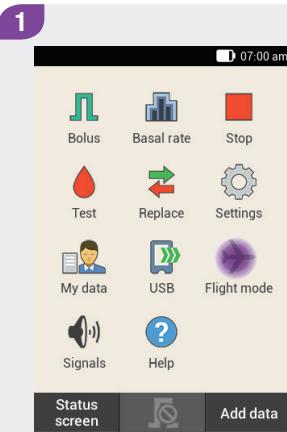
the micropump system, see chapter *11.2 Time and Date*.

Flight mode

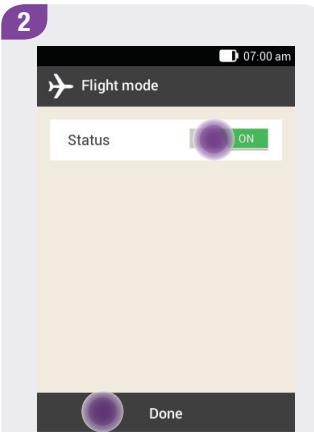
If the use of *Bluetooth* wireless technology is not allowed for flights, you can turn on flight mode. In flight mode, the diabetes manager and the micropump stop all activities of *Bluetooth* wireless technology, and communication between the two devices is suspended.

If the quick bolus feature was activated, you can continue to deliver boluses using the quick bolus buttons on the micropump. As soon as flight mode is turned off, the diabetes manager and micropump synchronize and update the event data.

11.9.1 Turning On Flight Mode

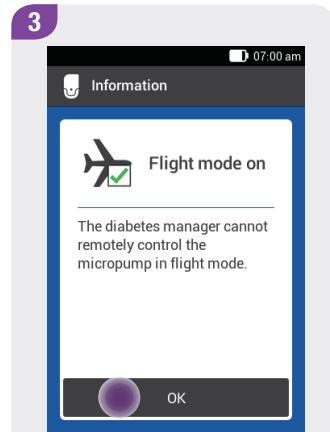


In the Main menu, tap **Flight mode**.

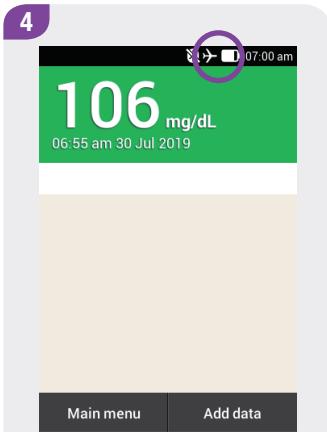


Tap **Status** to put the switch in the **ON** position.

Tap **Done**.



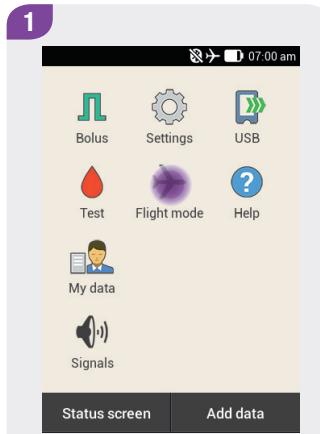
Confirm the displayed information by tapping **OK**. The micropump is automatically set to flight mode.



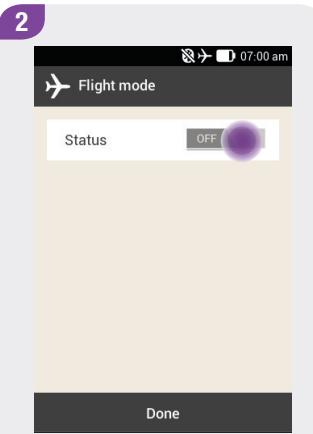
The **→** symbol in the status bar indicates that flight mode is turned on.

No micropump data is displayed in flight mode.

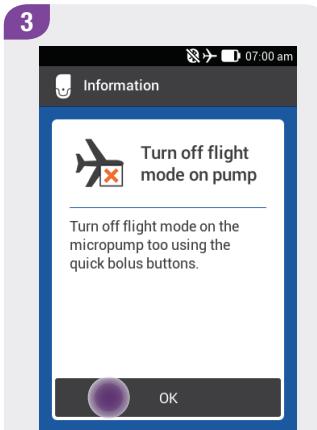
11.9.2 Turning Off Flight Mode



In the Main menu, tap the **Flight mode** menu.



Tap **Status** to put the switch in the **OFF** position.



Confirm the displayed information by tapping **OK**.

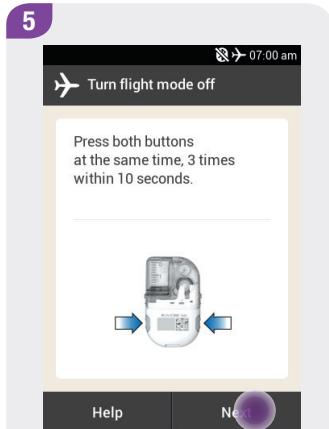
Note

It is not possible to turn off flight mode on the micropump using the diabetes manager.

To turn off flight mode on the pump, you must use the quick bolus buttons.

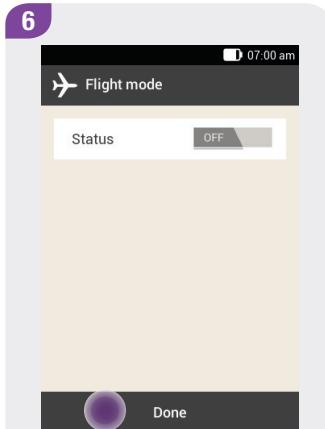


Press both quick bolus buttons 3 times simultaneously in quick succession. A maximum of 3 seconds may pass between each key press.

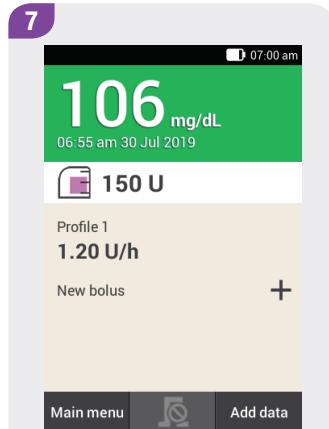


When flight mode is turned off, the micropump issues the "Flight mode deactivated" signal sequence.

Tap **Next**.



Tap **Done**.



Flight mode is turned off.

The flight mode symbol is no longer displayed in the status bar.

12 Reminders

Main menu > Settings > Reminders

You can set reminders for specific appointments and events. This can be useful when you have to make specific preparations, for example, for replacing the infusion assembly. A message on the screen and a signal attract your attention to the respective reminder at the set time.

You can select any tone from the option list for each reminder. In the factory settings, all reminders are deactivated. You can turn the reminders on or off by using the ON and OFF switch.

You can make different settings for the various reminder types:

Setting	Explanation
Time	The time of day the reminder occurs.
Date	The date the reminder occurs.
Remind after	Period of time following an event (for example, blood glucose value being too high) after which a reminder is to occur.
Tone	The tone that is used for the reminder.
Frequency	One-time reminder or regular reminder that is to occur every day at the same time.

12.1 Overview of Reminders

Reminder	Explanation
Replace infusion assembly	Reminds you to replace the infusion assembly after a specified number of days.
Alarm clock/Customized	The alarm clock sounds at the specified time.
Test blood glucose	Reminds you to test your blood glucose at a specified time.
After meal	Reminds you to test your blood glucose after eating if you have previously marked a blood glucose result as Before meal .
Test after low blood glucose result	Reminds you to test your blood glucose if your test result was below the set blood glucose value.
Test after high blood glucose result	Reminds you to test your blood glucose if your test result was above the set blood glucose value.
Missed bolus	This reminder occurs if no bolus was delivered within 2 hours prior to the programmed time.
Inject basal insulin	Reminds you to deliver basal insulin (available in injection mode only).
Healthcare professional visit/ Lab test	Reminds you that you have a healthcare professional visit or lab test.

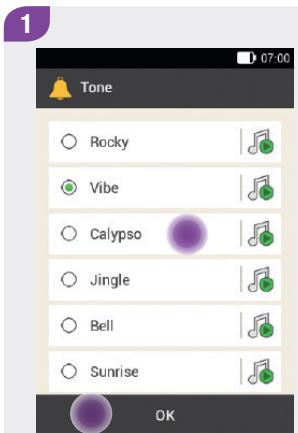
12.2 Programming Reminders

Set the desired time and frequency for each reminder. If you choose **Repeat**, you will be reminded of the event at certain intervals, for example, daily.

Some reminders only appear when certain conditions are met.

You can add more reminders by tapping **+**. Once the maximum number of reminders has been reached, you will see the information that no more reminders can be added, instead of the **+** symbol. By tapping **trash**, you can delete reminders you added.

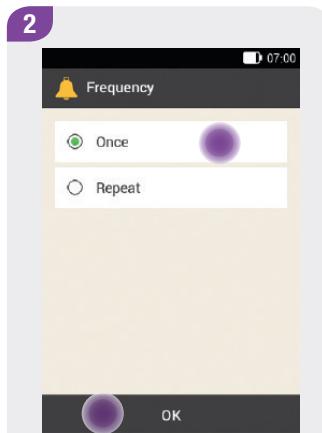
You can assign a tone from an option list to each programmed reminder. Tap **play** in the option list to listen to the tone.



Tap the desired tone to use for the reminder.

Tap **play** to listen to the tone beforehand.

Tap **OK**.



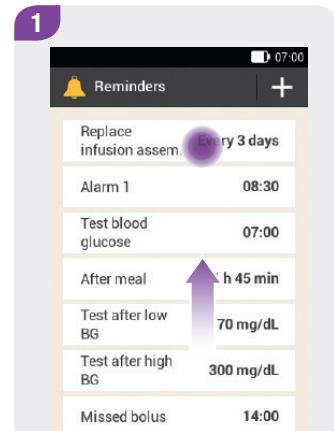
Choose **Once** or **Repeat**.

Depending on the reminder type, the system offers different repetition intervals.

Tap **OK**.

12.2.1 Reminder: Replace Infusion Assembly

This reminder reminds you to replace your infusion assembly.



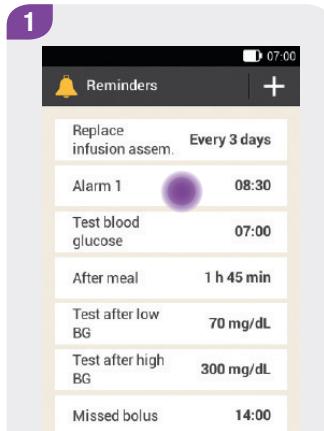
Tap Replace infusion assem..



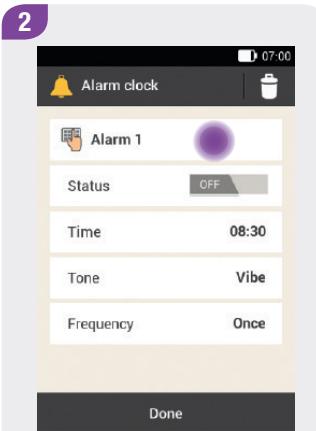
Tap Status to put the switch in the ON position. Tap Recurrence, Time, Tone to make the desired settings.

Once you have made all settings, tap Done.

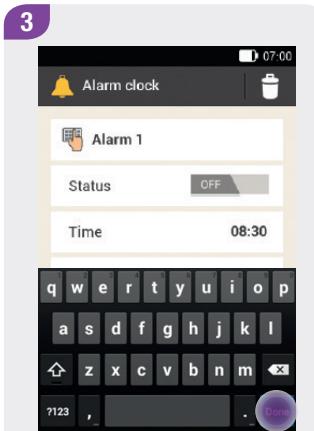
12.2.2 Reminder: Alarm Clock



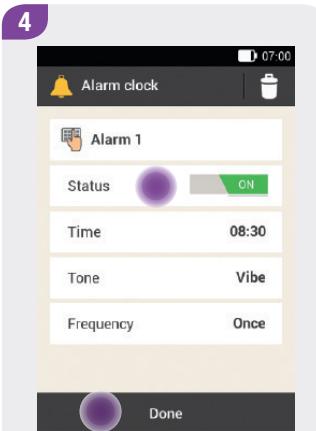
Tap **Alarm clock 1**.



Tap to assign a name to the alarm clock reminder.



Enter a name for the alarm clock reminder using the keyboard. The name may have up to 15 characters.

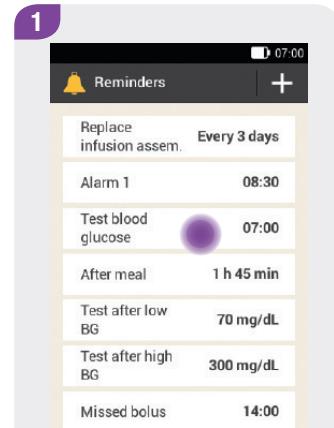


Tap **Status** to put the switch in the **ON** position. Tap **Time**, **Tone** or **Frequency** to make the desired settings.

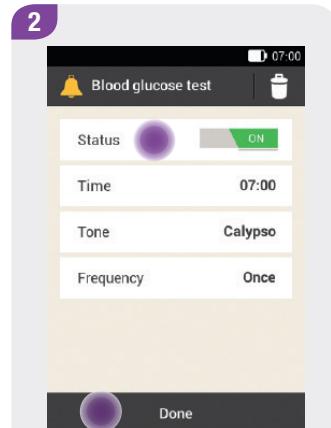
Once you have made all settings, tap **Done**.

12.2.3 Reminder: Test Blood Glucose

This reminder reminds you to test your blood glucose at a time that was specified beforehand.



Tap **Test blood glucose**.



Tap **Status** to put the switch in the **ON** position. Tap **Time**, **Tone** or **Frequency** to make the desired settings.

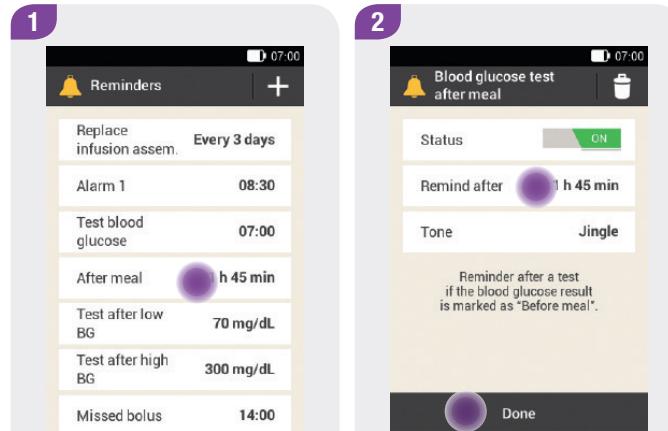
Once you have made all settings, tap **Done**.

Note

When you test your blood glucose, the diabetes manager dismisses any blood glucose test reminders that are pending within the next 30 minutes.

12.2.4 Reminder: After meal

This reminder reminds you to test your blood glucose if a previously measured blood glucose result was marked as *Before meal*.



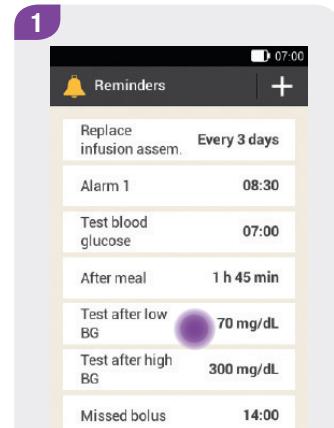
Tap **After meal**.

Tap **Remind after** to enter the time after which you want the reminder to appear.

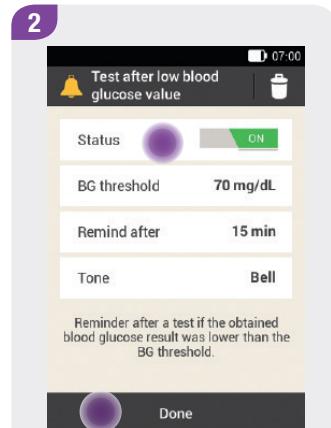
Once you have made all settings, tap **Done**.

12.2.5 Reminder: Test After Low BG

This reminder reminds you to test your blood glucose again when the previous test result was too low. The BG threshold in this reminder can be set individually and is independent of the hypo warning limit set by you.



Tap the **Test after low BG** entry.

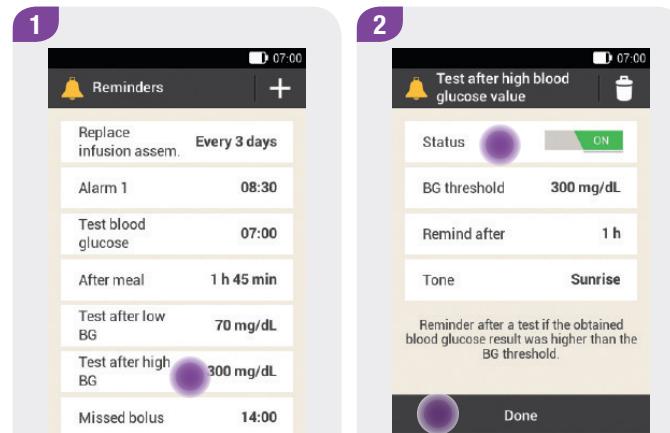


Tap **Status** to put the switch in the **ON** position. Tap **BG threshold**, **Remind after** or **Tone** to make the desired settings.

Once you have made all settings, tap **Done**.

12.2.6 Reminder: Test After High BG

This reminder reminds you to test your blood glucose again when the previous test result was too high. The BG threshold in this reminder can be set individually and is independent of the hyper warning limit set by you.



Tap the **Test after high BG** entry.

Tap **Status** to put the switch in the **ON** position. Tap **BG threshold**, **Remind after** or **Tone** to make the desired settings.

Once you have made all settings, tap **Done**.

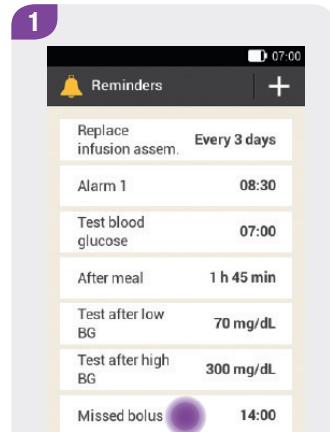
12.2.7 Reminder: Missed Bolus

This reminder occurs if no bolus was delivered within 2 hours prior to the programmed time. You can program up to 5 reminders of the **Missed bolus** type.

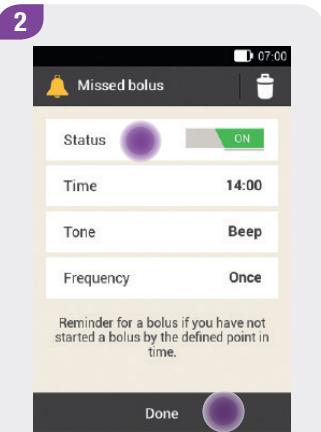
Example

The missed bolus reminder is programmed for 14:00.

- ▶ If no bolus is delivered between 12:00 and 14:00, the previously programmed reminder will occur at 14:00.
- ▶ If a bolus was delivered between 12:00 and 13:59, no reminder will occur.



Tap the **Missed bolus** entry.



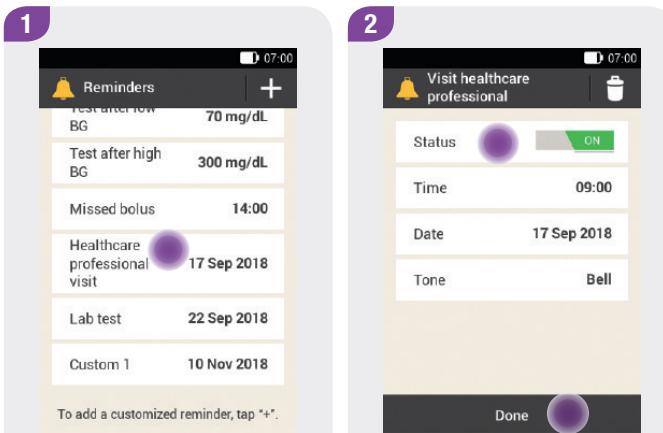
Tap **Status** to put the switch in the **ON** position. Tap **Time**, **Tone** or **Frequency** to make the desired settings.

Once you have made all settings, tap **Done**.

12.2.8 Appointment Reminders: Healthcare Professional Visit, Lab Test, Customized

Appointment reminders are a helpful way of reminding you of an upcoming healthcare professional visit or lab test. In addition, you can set customized appointment reminders.

These reminders are displayed when you turn on the diabetes manager on the specified reminder date.



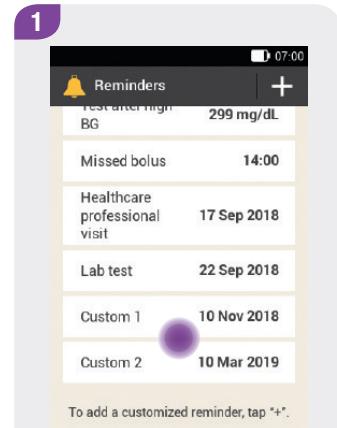
Tap **Healthcare professional visit**.

Tap **Status** to put the switch in the **ON** position. Tap **Time**, **Date** or **Tone** to make the desired settings.

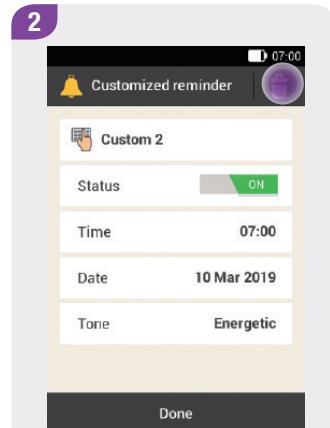
Once you have made all settings, tap **Done**.

12.3 Deleting Reminders

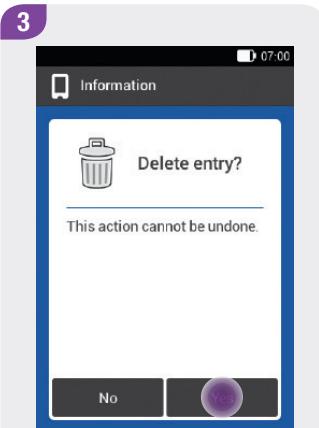
If required, you can delete customized reminders. The reminders that are predefined in the system, however, cannot be deleted.



Tap the reminder you want to delete, for example, **Custom 2**.



Tap the  symbol to delete the reminder.



Tap **Yes** if you want to permanently delete the reminder now.

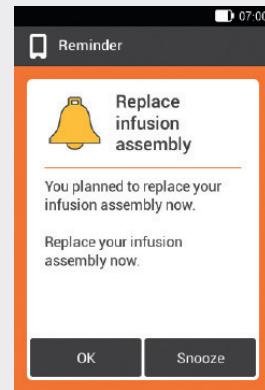
12.4 Issuing Reminders

When turned on, the diabetes manager displays a reminder as soon as the specified time has been reached. The diabetes manager vibrates and the respective reminder is accompanied by the selected tone. The volume corresponds to the set signal mode.

You can confirm the reminder with **OK** or you can specify to be reminded again in 15 minutes by tapping **Snooze**.

When turned off, no reminders are issued. If an event occurs during that time, the reminder will be issued after the diabetes manager is turned on.

Example



Reminder: Replace infusion assembly

Tap **OK** to confirm the reminder. The reminder will no longer be displayed.

Tap **Snooze** if you want to be reminded again at a later point in time. The reminder will be issued again in 15 minutes.

13 Injection Therapy Mode

If you do not want to use your micropump for a while, you can switch to injection therapy mode. This could be the case, for example, if you want to go without your insulin pump while on vacation.

Discuss pausing your pump therapy with your healthcare professional. Switch to alternative therapy methods only after consultation.

When you switch to injection therapy, your diabetes manager supports you as follows:

- ▶ Bolus advice results are rounded to the increment of your pen.
- ▶ You can write down your basal insulin injections in the detailed test result and in the logbook entries of the diabetes manager.
- ▶ A reminder is available that you can use to be reminded about basal insulin injections.

Note

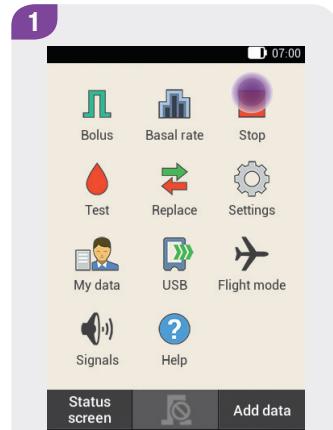
- ▶ If you are using bolus advice, carry out the injections in a timely fashion and using the dosage you confirmed. If you inject a different insulin amount, you should adjust the respective logbook entry.
- ▶ You should enter any boluses that were delivered independently of the diabetes manager using an insulin pen or syringe as new data in the logbook.
- ▶ Store the micropump and consumables according to the permitted ambient conditions. For more information, see chapter *16 Technical Data*.

13.1 Removing the Micropump Temporarily

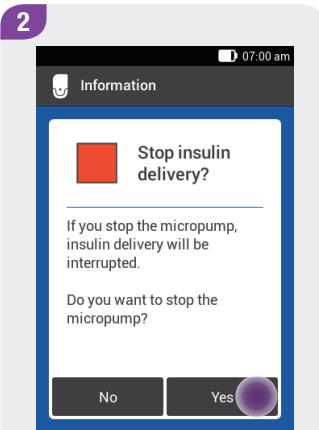
While you are delivering insulin by injection, set the micropump to STOP mode, take the micropump off and remove the infusion assembly.

Note

Refer to General Warnings for guidance on safe handling and disposal of the used infusion assembly.



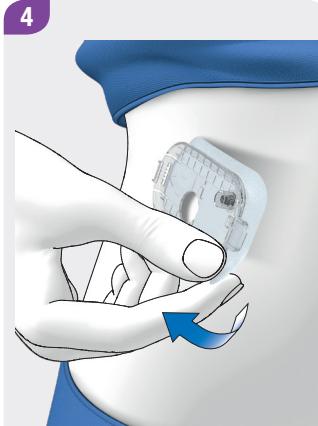
In the Main menu, tap **Stop** to interrupt insulin delivery.



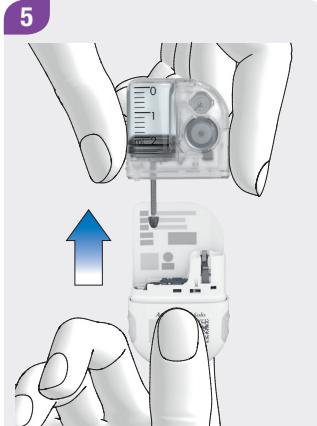
Tap **Yes**.



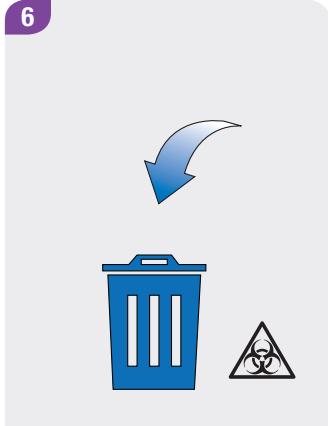
Press the tab to detach the micropump and remove the pump from the infusion assembly.



Remove the infusion assembly by loosening the edges of the adhesive pad and pulling it off towards the center.



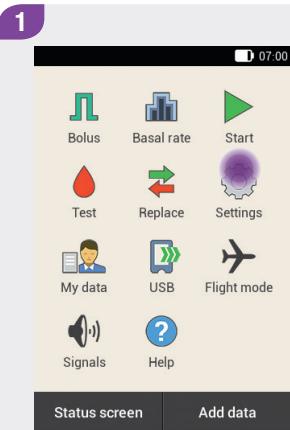
Remove the used reservoir from the pump base.



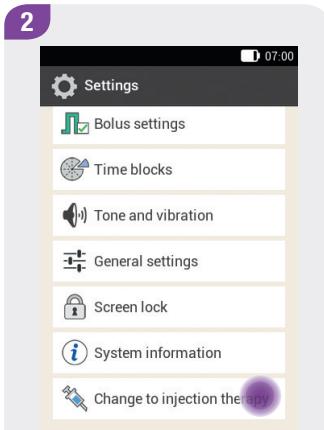
Dispose of the used infusion assembly and used reservoir. Contact your local waste management authority for guidance on how to recycle or dispose of used reservoirs and used infusion assemblies in an environmentally responsible manner.

Keep the pump base in a safe place.

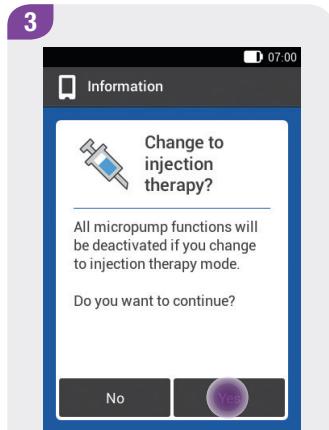
13.1.1 Activating Injection Therapy Mode



In the Main menu, tap the **Settings** menu.

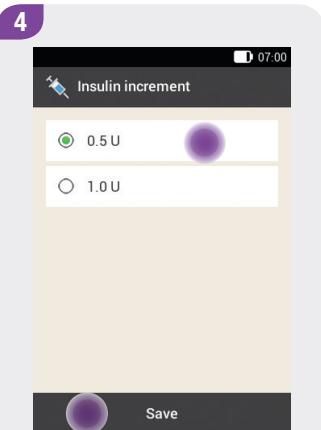


Tap the **Change to injection therapy** entry.



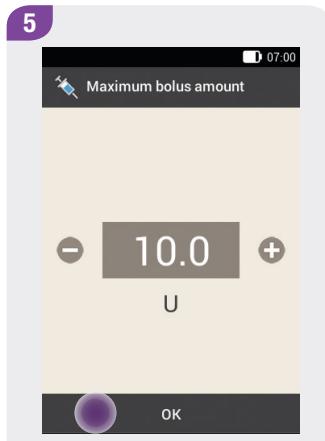
Tap **Yes**.

The functions for controlling the micropump will be turned off.



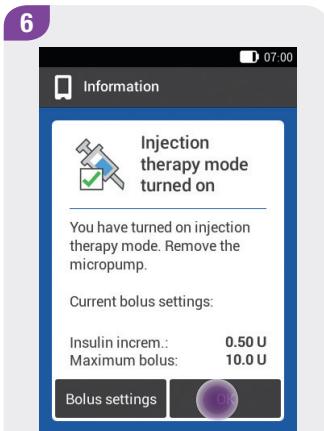
Tap the desired insulin increment for the pen.

Tap **Save**.



Use **–** and **+** to set the maximum bolus amount you want to deliver with the pen/syringe.

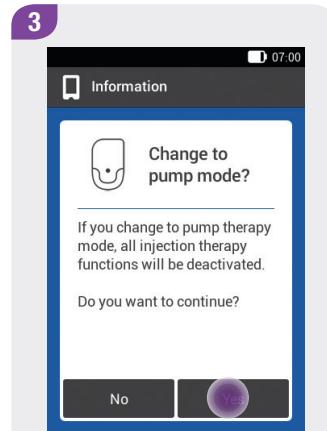
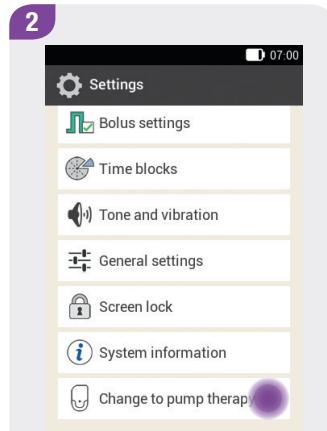
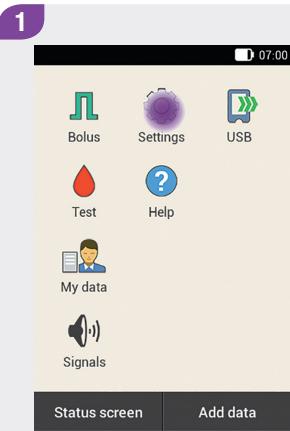
Tap **OK**.



The display informs you that injection therapy mode is turned on. The current bolus settings are displayed.

Tap **OK** if you want to continue with these settings.

13.1.2 Deactivating Injection Therapy Mode

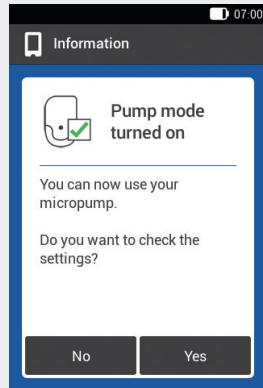


In the Main menu, tap the **Settings** menu.

Tap the **Change to pump therapy** entry.

Tap **Yes**.

4



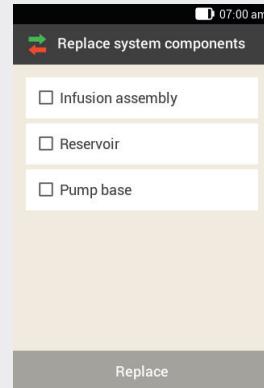
If you want to use the micropump with the most recently saved settings, tap **No**.

► The diabetes manager establishes a connection to the most recently used micropump, and you are taken to the **Replace** menu. Replace the reservoir.

If you would like to review the pump therapy settings, tap **Yes**.

► Check the bolus settings as well as the settings for the basal rate.
► Select the **Replace** menu. Replace the reservoir.

5



Replace the components as needed. For more information, see chapter 9 *Replacing System Components*.

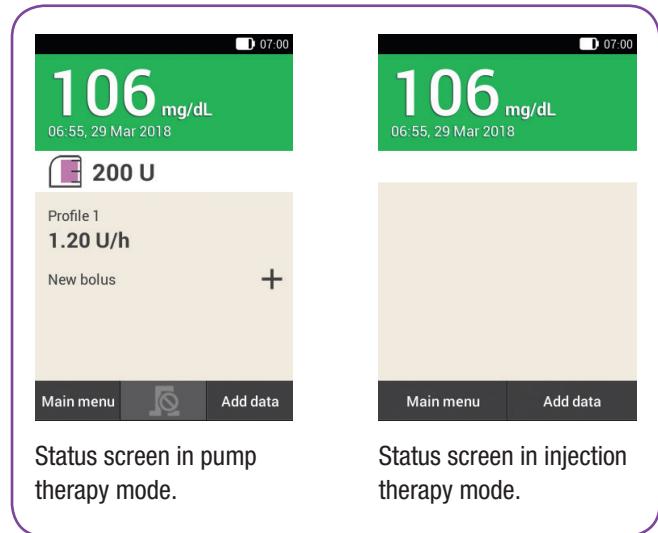
If you do **not** replace any components, the micropump will remain in STOP mode. In this case, start the pump from the Main menu.

13.2 Injection Therapy Displays

Once you turn on injection therapy mode, some of the displays and menus on the diabetes manager change. The elements necessary for pump therapy are no longer available on the Status screen. In the Main menu, some of the menus are omitted from the menu selection.

The  button to cancel an ongoing bolus is omitted in injection therapy mode.

Display elements omitted on the Status screen



Display element	Status screen for injection therapy
	Reservoir symbol omitted
Basal Rate Profile 1 0.50 U/h	Basal rate information omitted
Standard 6.50 U	Ongoing bolus information omitted